

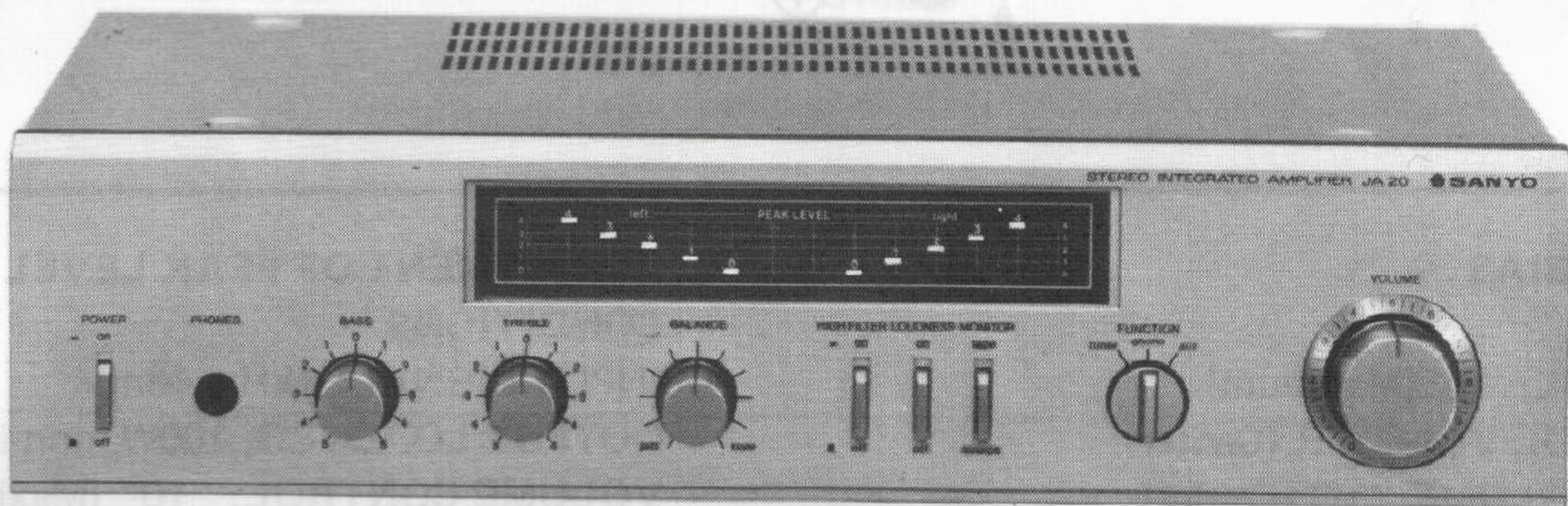
SERVICE MANUAL



STEREO AMPLIFIER

JA 20

(EUROPE)

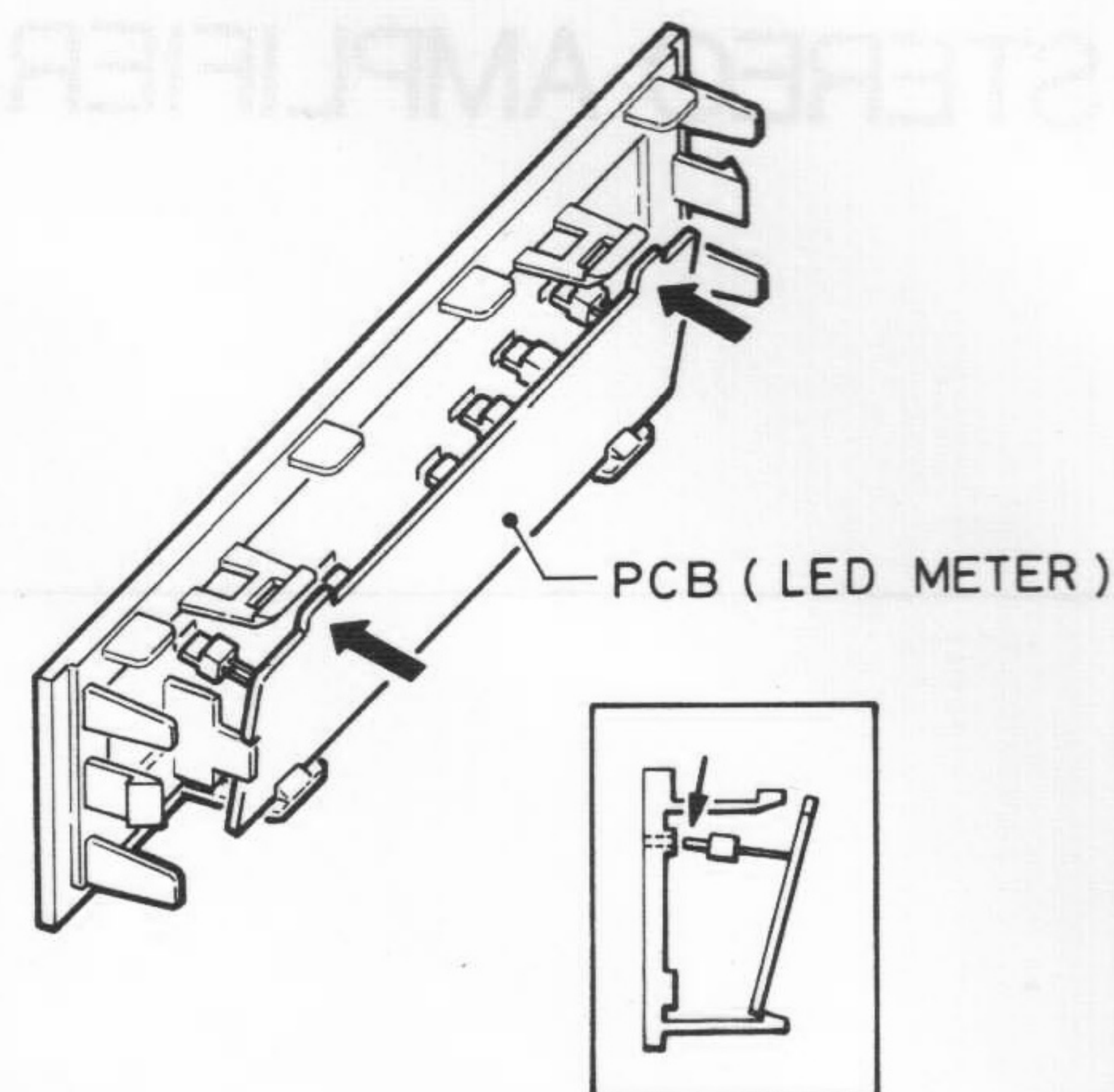
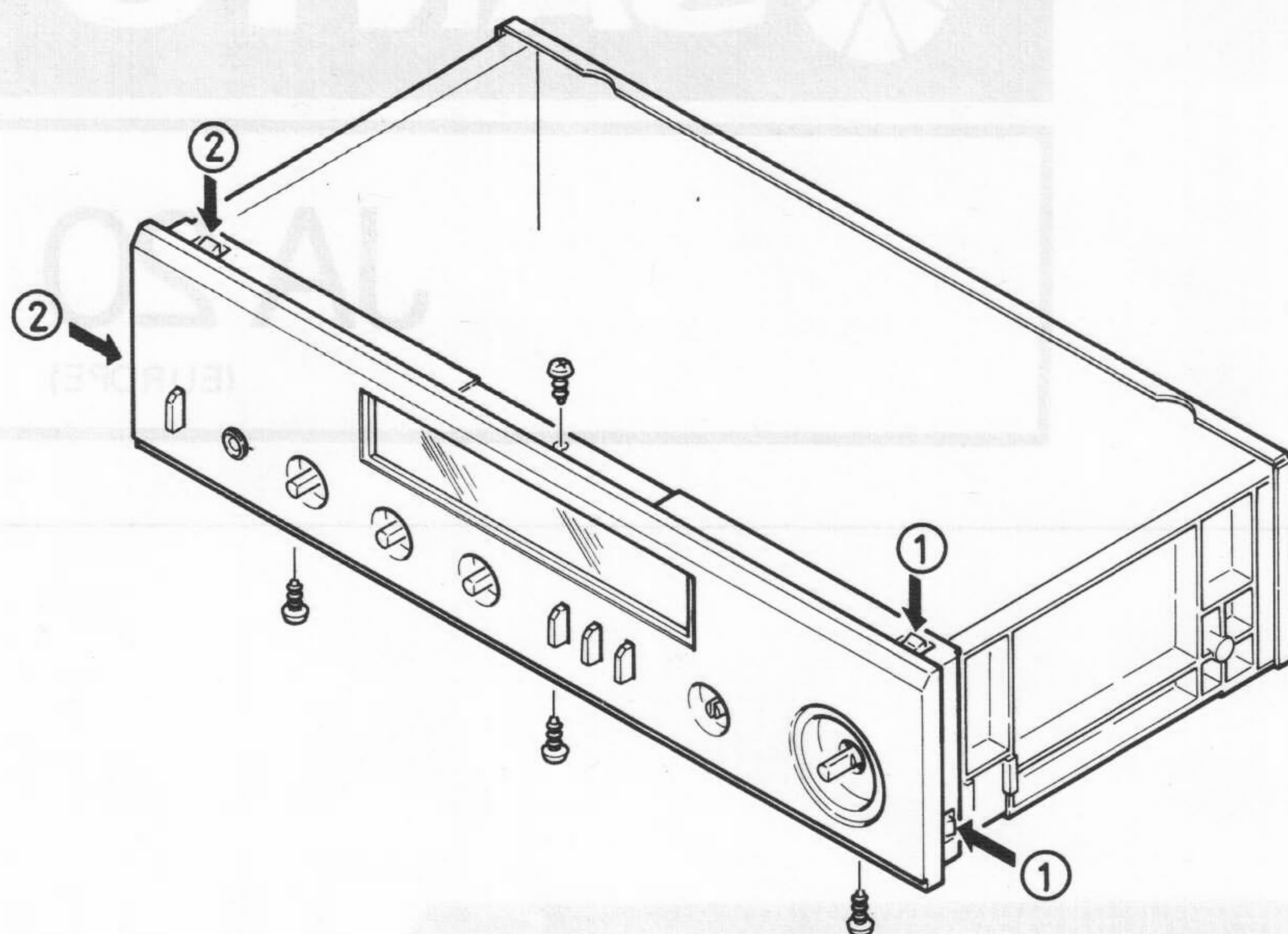


NOTE: SPECIFICATIONS

The below mentioned specifications are mainly based on the IHF measurements standard. They can therefore not directly be compared with specifications based on the DIN standard or other standards.

Continuous output power	20 W x 2 (at 8 ohms, 1% distortion)
Total harmonic distortion	0.1% (16 W output, 8 ohms)
Input sensitivity and impedance	
PHONO	2.5 mV/47 kohms
AUX/TUNER/TAPE PLAY	150 mV/47 kohms
Phono overload level	120 mV RMS (at 1 kHz)
Output level	
TAPE REC	150 mV
Frequency response	10 Hz – 40 kHz (AUX)
Tone control response	
BASS	±8 dB (at 100 Hz)
TREBLE	±8 dB (at 10 kHz)
High filter response	8 kHz (–6 dB/oct.)
Loudness control response (Vol. –30 dB)	
100 Hz/10 kHz	+8 dB/+4 dB
Signal to noise ratio	70 dB
Power requirements	AC: 220 V, 50 Hz
Power consumption	90 W
AC output socket	AC: 18 V, 300 mA (max.)
Dimensions (Approx.)	380 (W) x 180 (D) x 88 (H) mm
	(15-3/16" x 7-1/8" x 3-1/2")
Weight (Approx.)	3.6 kg (7 lbs. 15 ozs.)

* Specifications subject to change without notice.



ADJUSTMENT

1. ADJUSTMENT OF BIAS

*CONDITIONS

VOLUME CONTROL: "0" (Minimum)
 BALANCE CONTROL VOLUME: (Center)
 BASS CONTROL VOLUME: "0" (Center)
 TREBLE CONTROL VOLUME: "0" (Center)
 FUNCTION SWITCH: TUNER
 MONITOR SWITCH: SOURCE
 HIGH FILTER SWITCH: OFF
 LOUDNESS SWITCH: OFF
 OUTPUT LOAD: NO LOAD

After the power switch is turned on, adjust SVR703 and SVR803 respectively as follows:

L — channel: SVR703 for 2 ~ 3mV reading between the both leads of R734.

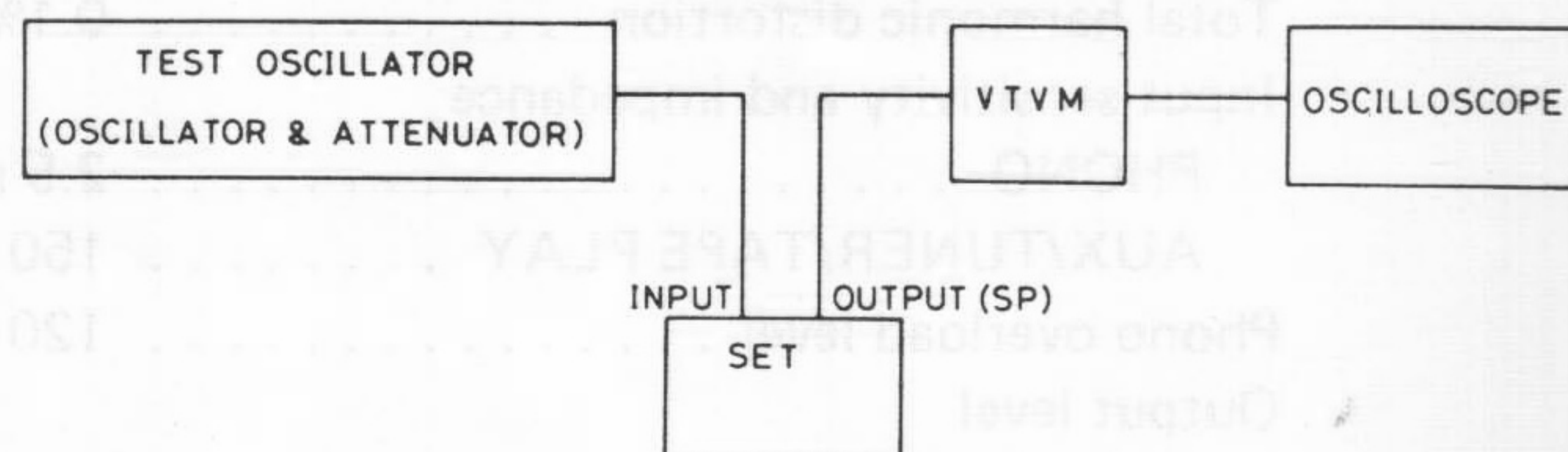
R — channel: SVR803 for 2 ~ 3mV reading between the both leads of R834.

2. ADJUSTMENT OF PEAK LEVEL METER

*CONDITIONS

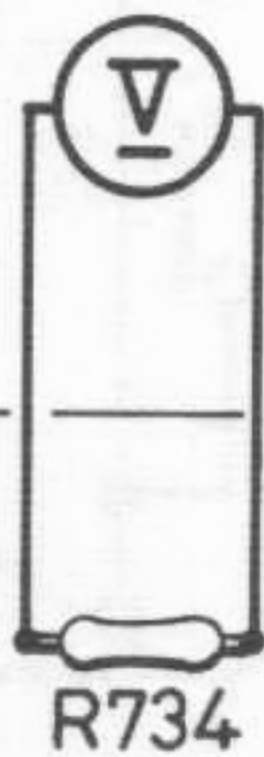
INPUT SIGNAL: 1kHz, 46mV
 OUTPUT LOAD: 8Ω, 100W, non-inductive resistance
 VOLUME CONTROL: "10" (Maximum)

- (1) Introduce test oscillator signal to the TUNER terminal.
- (2) Adjust test oscillator signal so that LED "3" of the right side peak level meter begins to light.
 (The output voltage of the right side becomes about 3.5V at this time.)
- (3) Next, check that the output voltage of left speaker is same as the right side. Adjust with SVR762 so that LED "3" of peak level meter begins to light.

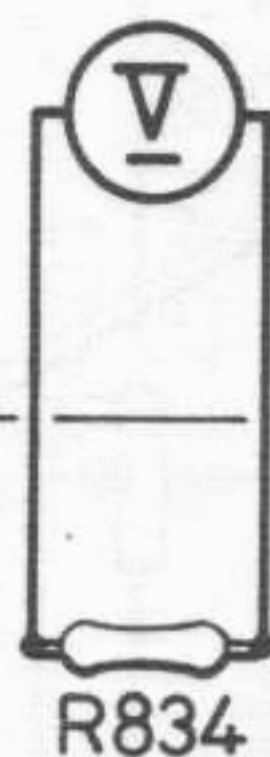



SVR762

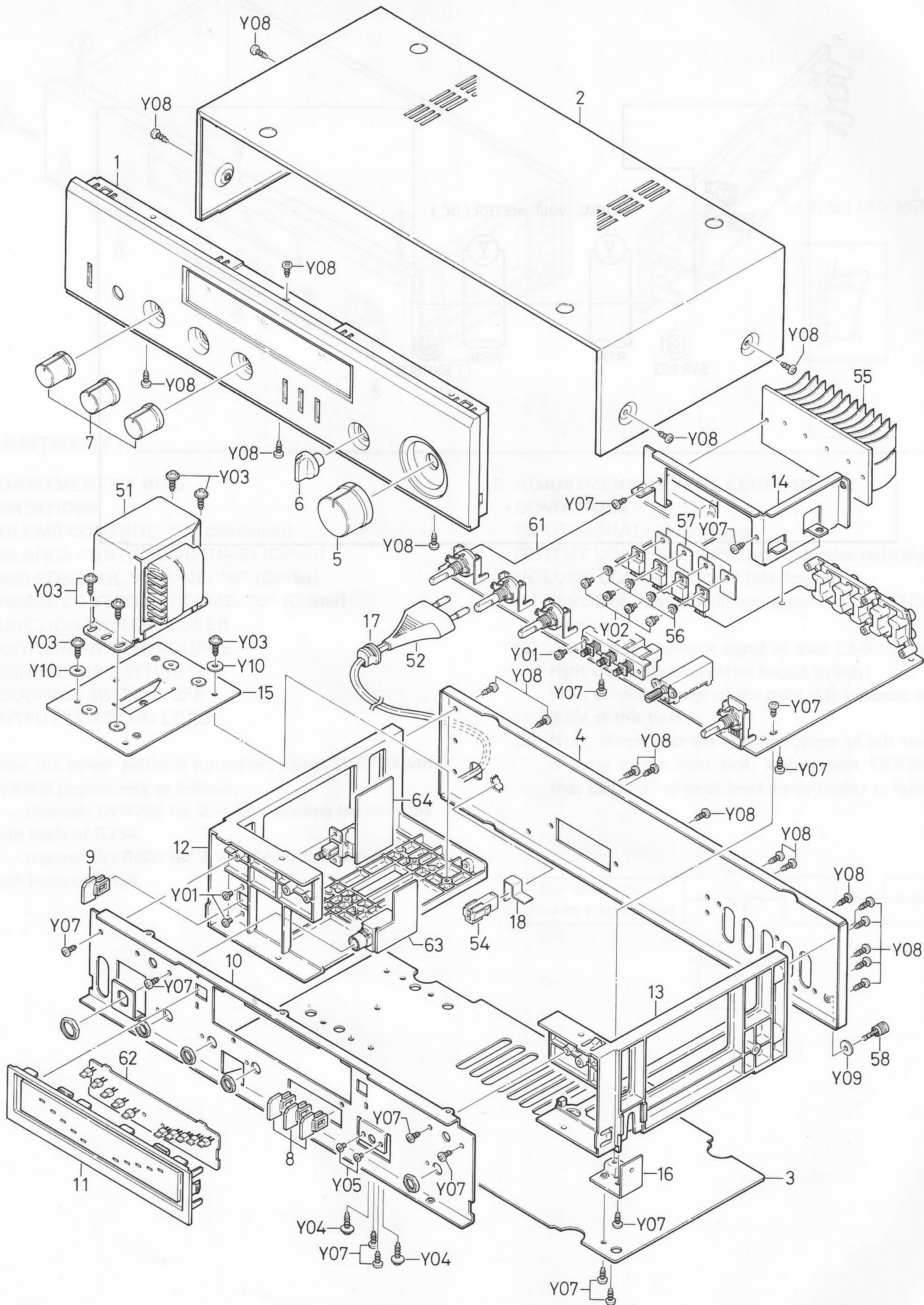
DIGITAL VOLT METER (DC)




SVR703



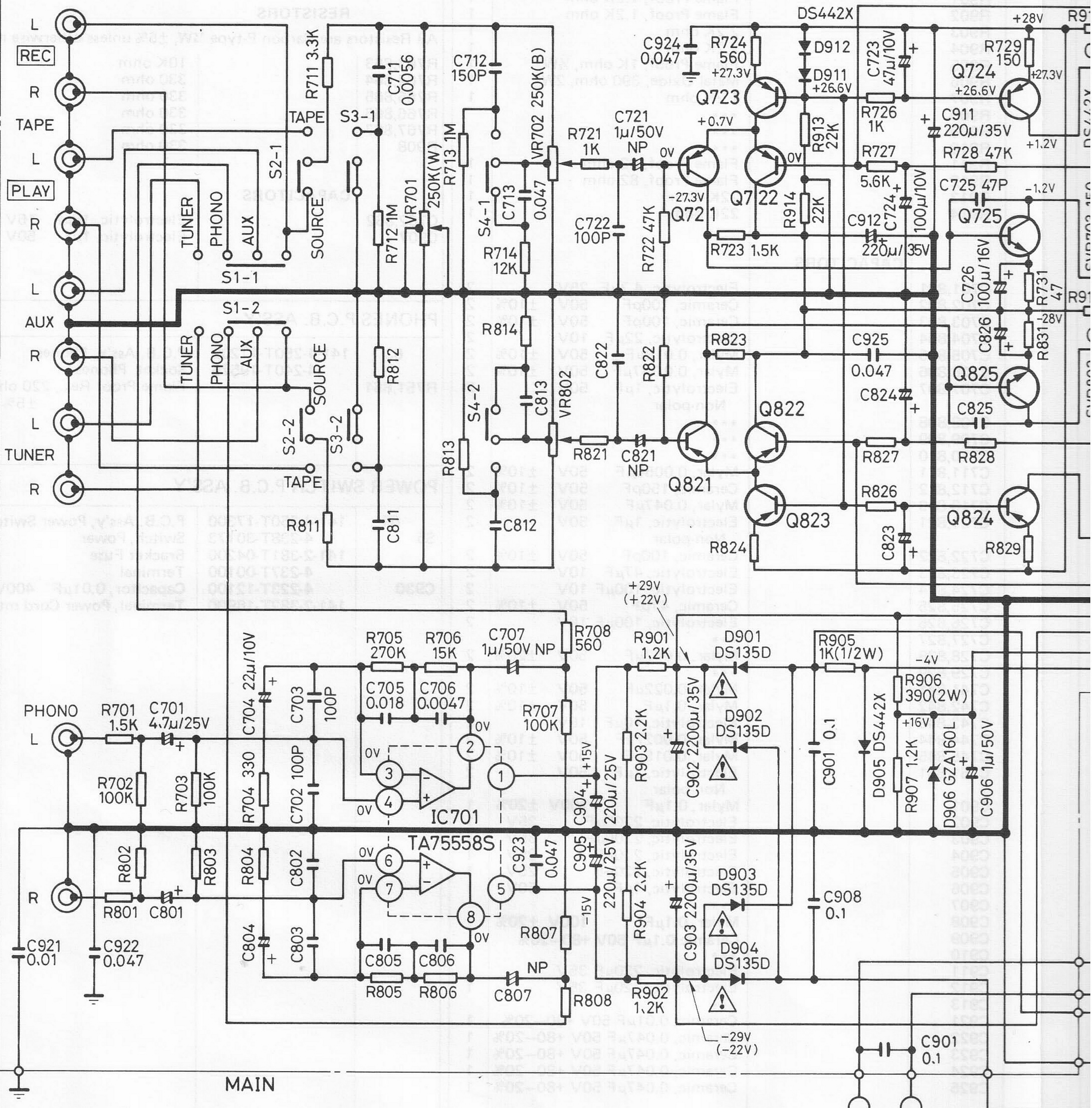

SVR803



Q721,722,821,822 2SA1016G
Q723,823 2SA999F

Q724,824 2SA999F
Q725,825 2SC536KF

Q7
Q7



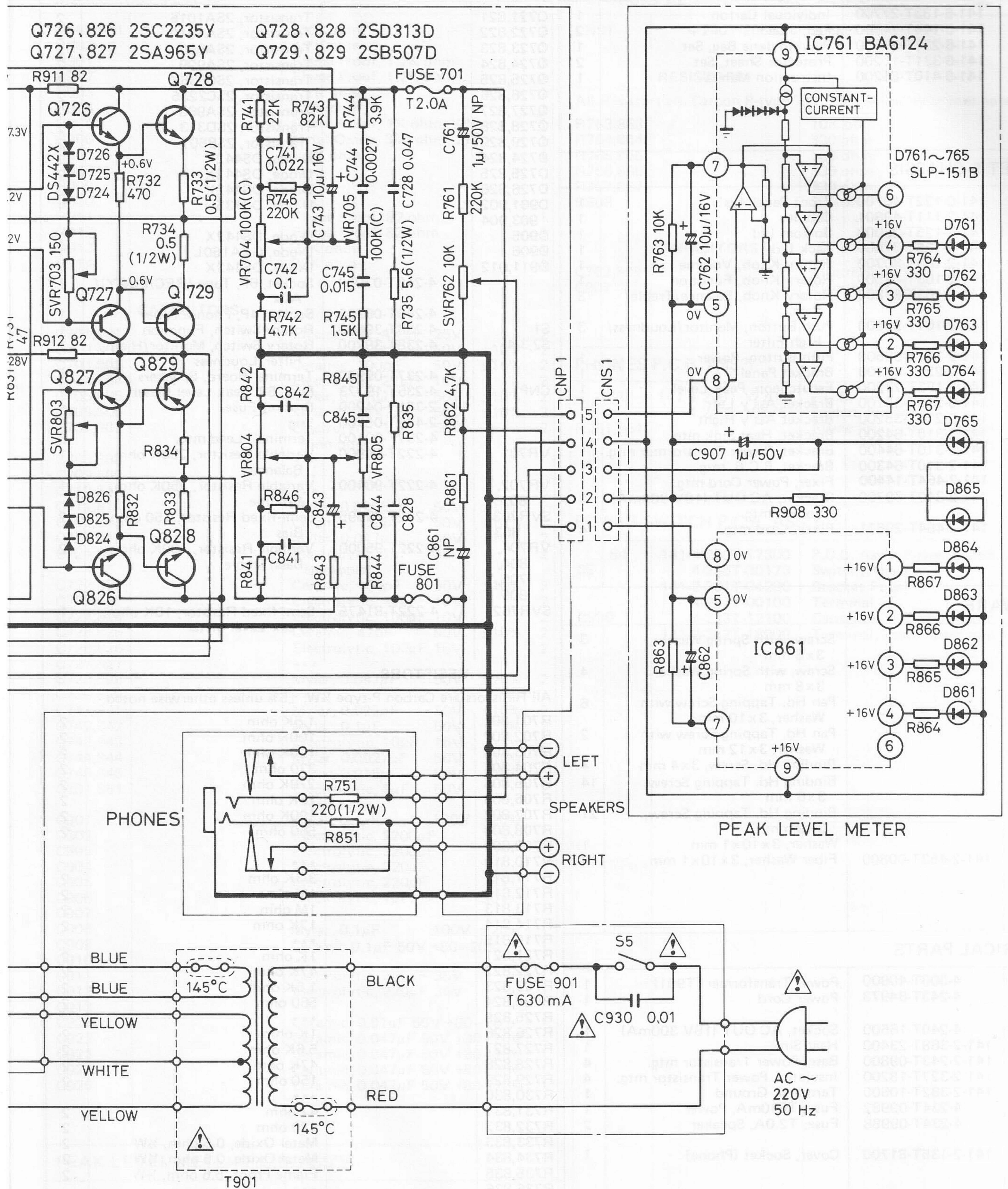
MAIN

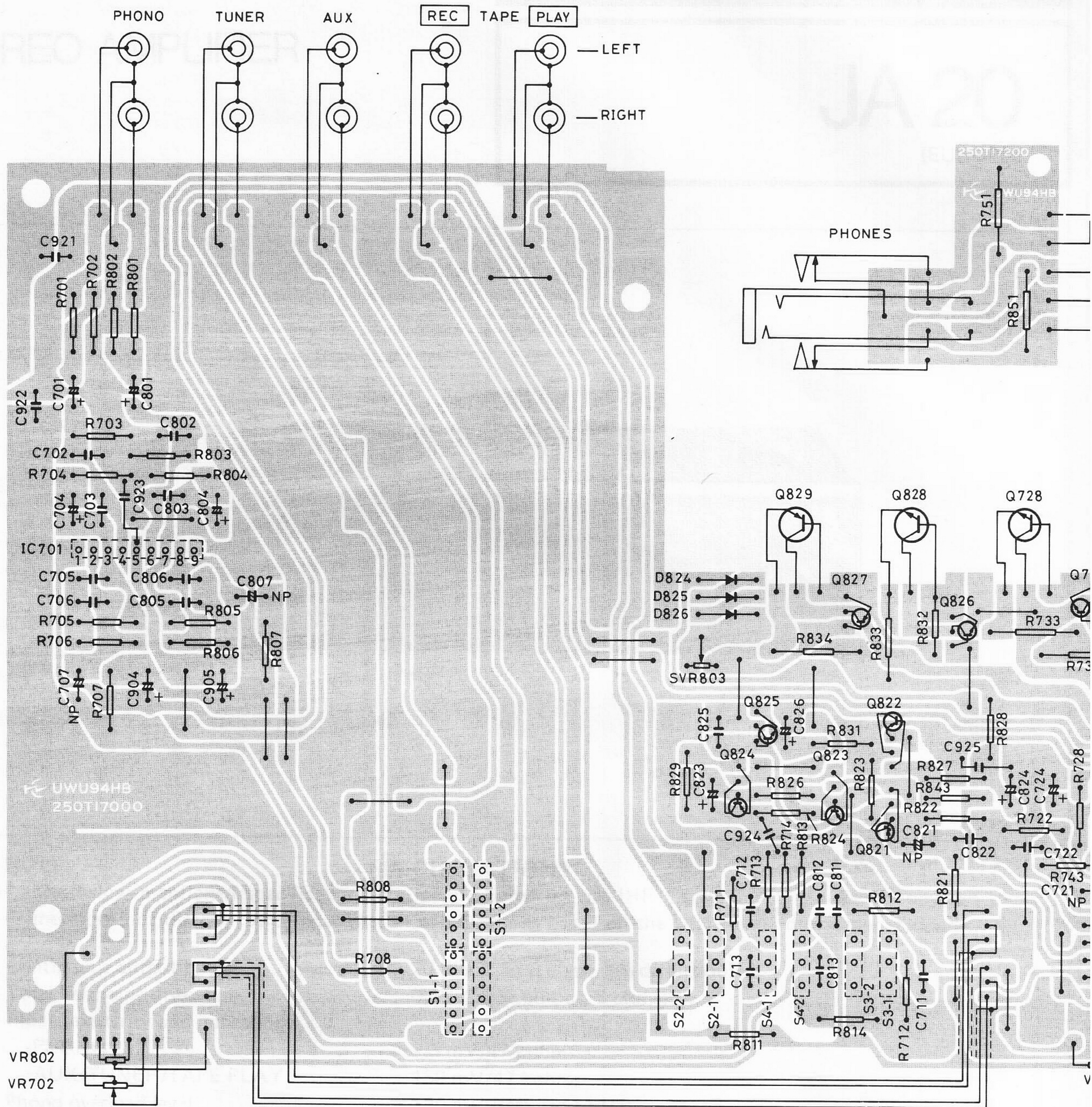
TO TUNER
AC OUT ~ 18V 300mA

SWITCHES
S1....FUNCTION SWITCH
S2....MONITOR SWITCH
S3....HIGH FILTER SWITCH
S4....LOUDNESS SWITCH
S5....POWER SWITCH

(TUNER PHONO AUX)
(SOURCE TAPE)
(ON OFF)
(ON OFF)
(ON OFF)

CONTROLS
VR701.....BALANCE CONTROL
VR702, 802 ...VOLUME CONTROL
VR704, 804 ...BASS CONTROL
VR705, 805 ...TREBLE CONTROL

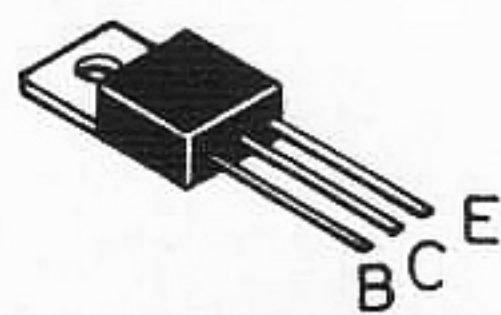




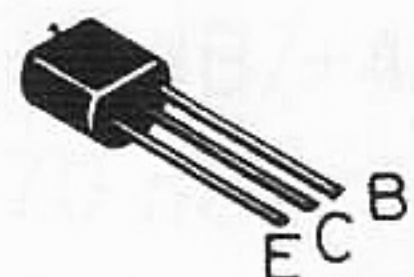
IC701.....TA7558S



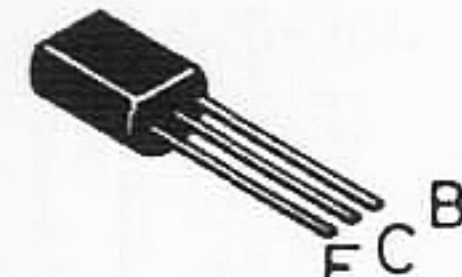
IC761, 861.....BA6124



Q728, 828.....2SD313D
Q729, 829.....2SB507



Q721, 821
Q722, 822.....2SA1016
Q723, 823
Q724, 824.....2SA999
Q725, 825.....2SC536



Q726, 826.....2SC2235
Q727, 827.....2SA965

